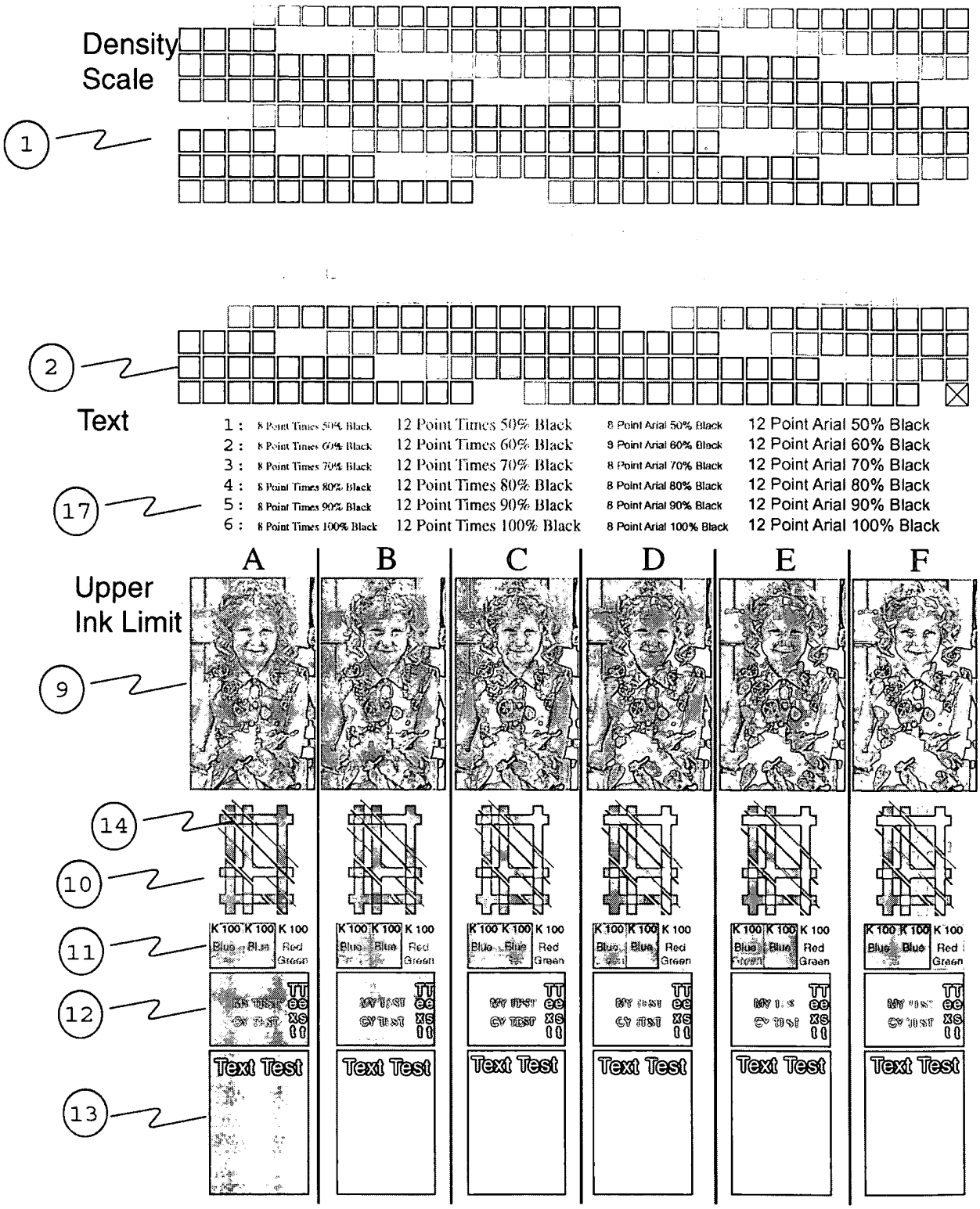

Density Scale
1
2
Text
1 : 8 Point Times 50% Black 12 Point Times 50% Black 8 Point Arial 50% Black 12 Point Arial 50% Black
2 : 8 Point Times 60% Black 12 Point Times 60% Black 8 Point Arial 60% Black 12 Point Arial 60% Black
3 : 8 Point Times 70% Black 12 Point Times 70% Black 8 Point Arial 70% Black 12 Point Arial 70% Black
4 : 8 Point Times 80% Black 12 Point Times 80% Black 8 Point Arial 80% Black 12 Point Arial 80% Black
5 : 8 Point Times 90% Black 12 Point Times 90% Black 8 Point Arial 90% Black 12 Point Arial 90% Black
6 : 8 Point Times 100% Black 12 Point Times 100% Black 8 Point Arial 100% Black 12 Point Arial 100% Black
17
A
B
C
D
E
F
Upper Ink Limit
9
14
10
11
12
13
K 100 K 100 K 100
Blue Blue Red Green
Text Test

Figure 1

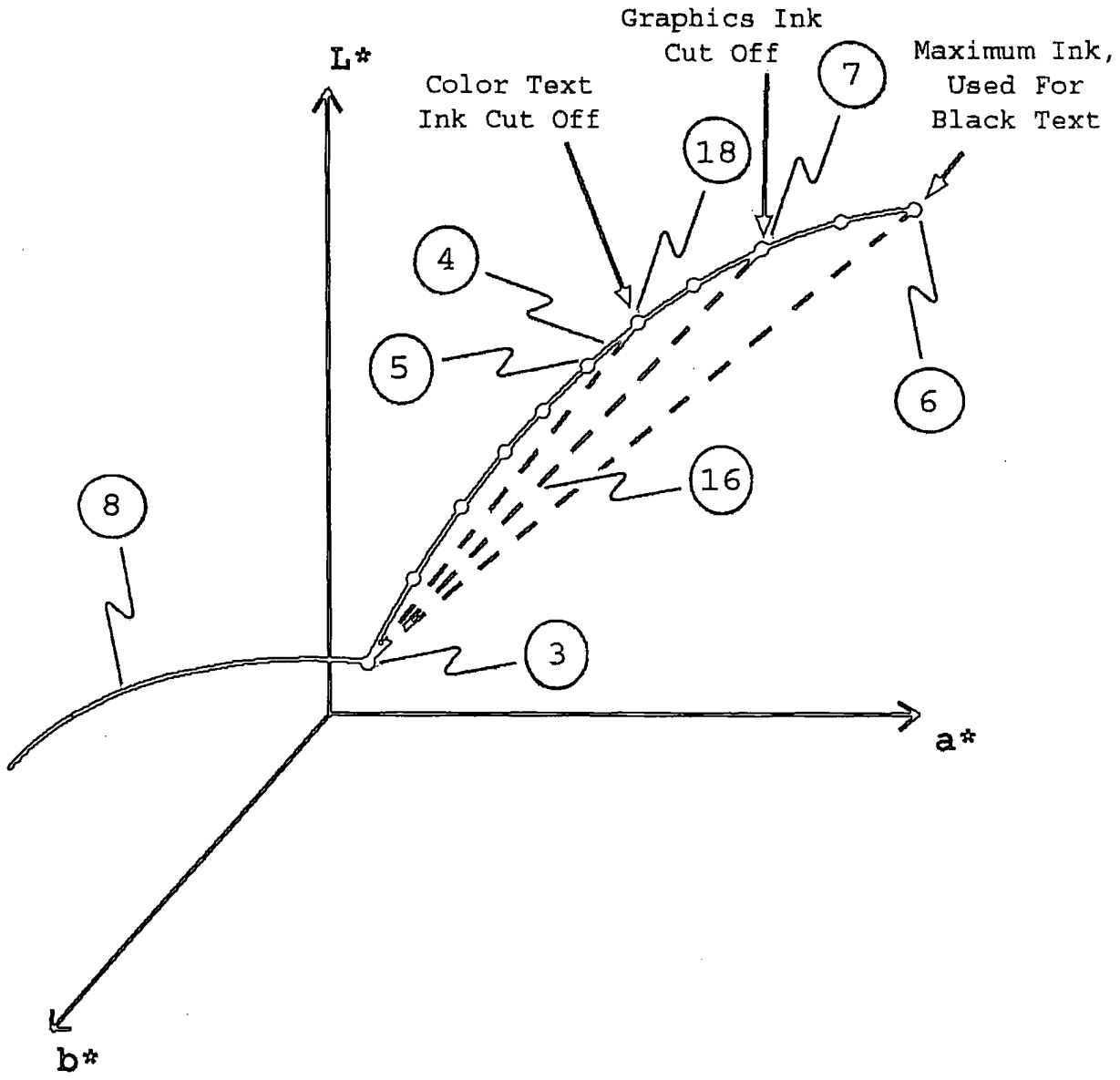

L*
Graphics Ink
Cut Off
Color Text
Ink Cut Off
Maximum Ink,
Used For
Black Text
7
18
4
5
6
16
8
3
a*
b*

Figure 2

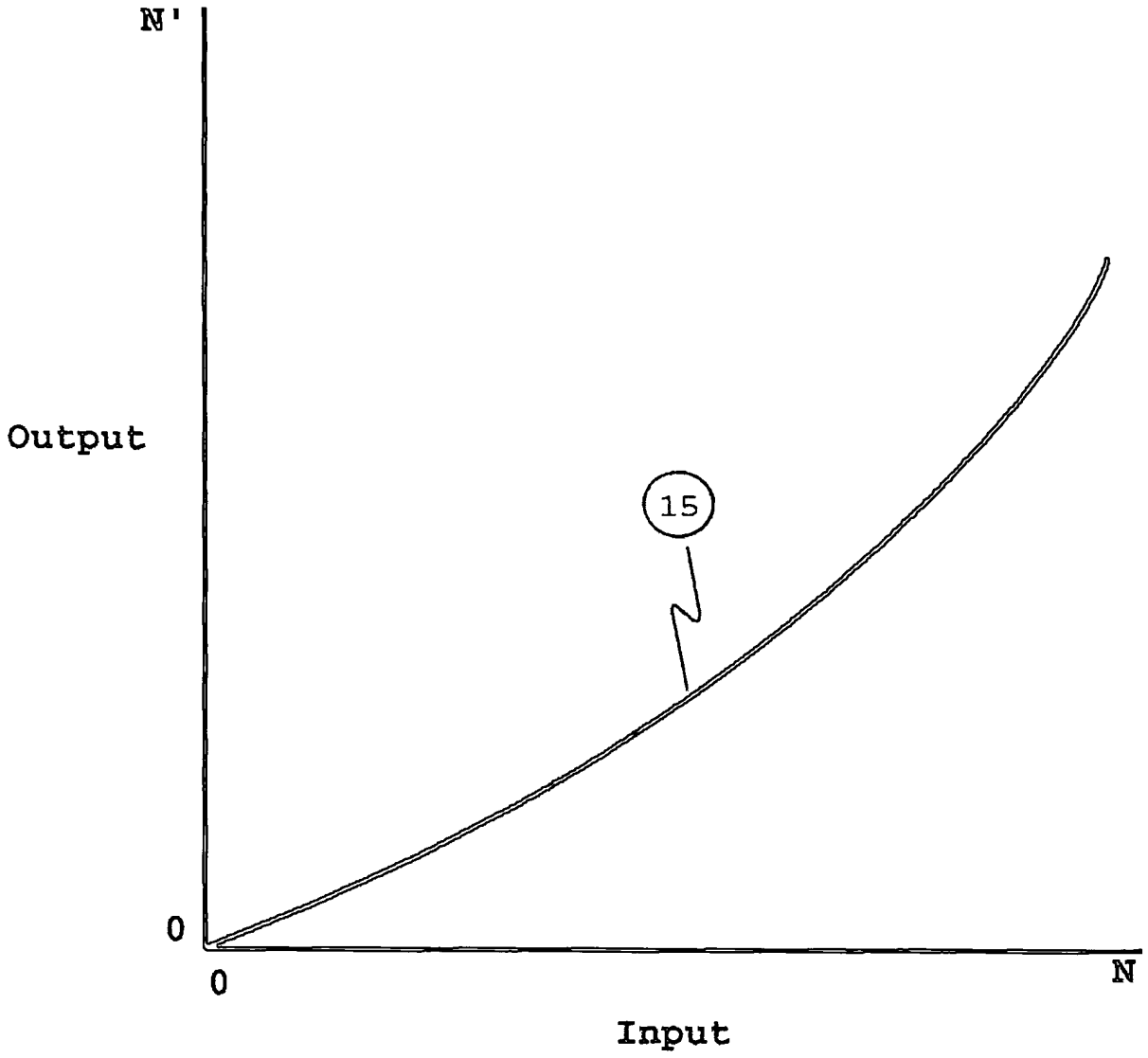



Figure 3

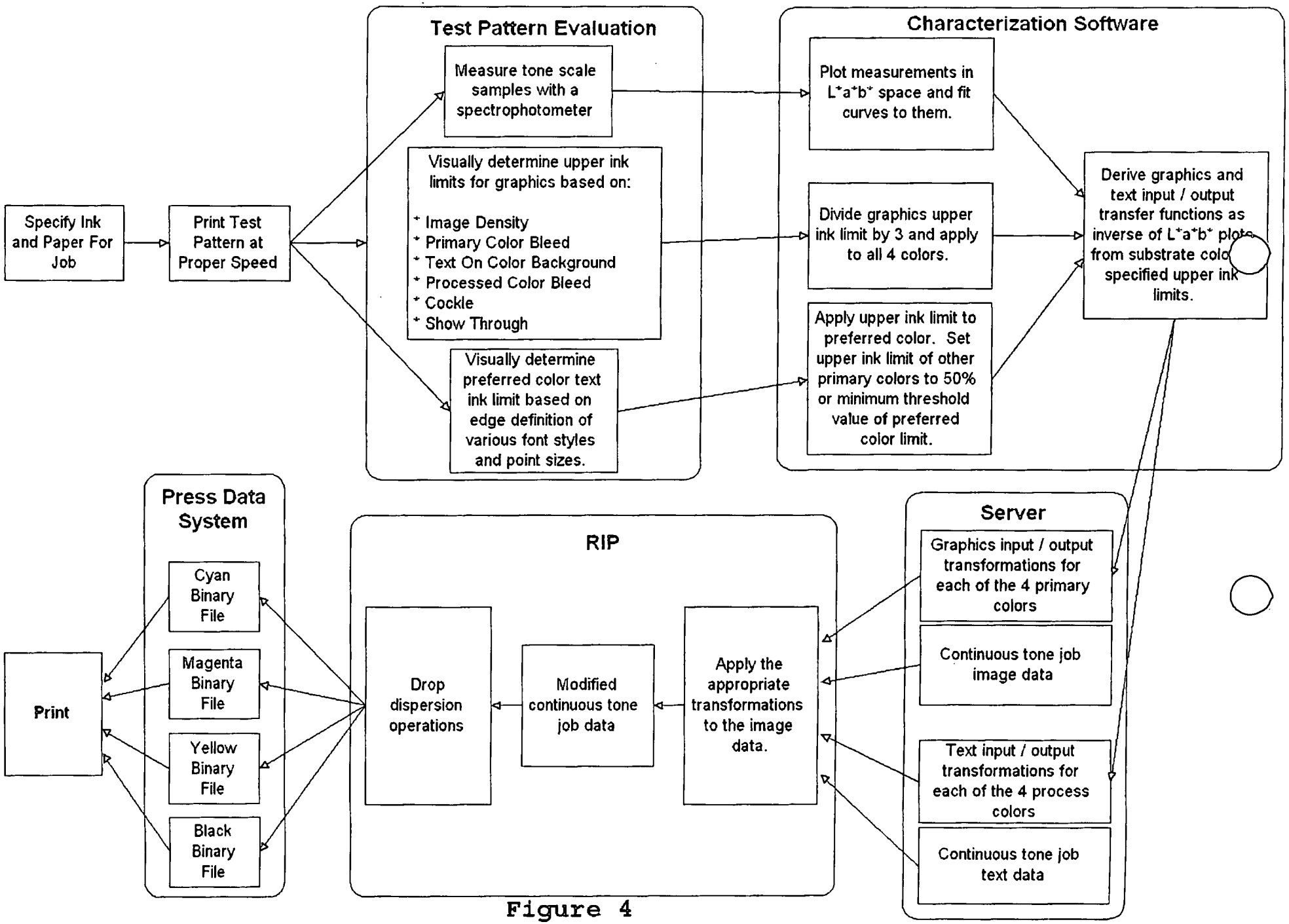

Test Pattern Evaluation
Measure tone scale samples with a spectrophotometer
Visually determine upper ink limits for graphics based on:
* Image Density
* Primary Color Bleed
* Text On Color Background
* Processed Color Bleed
* Cockle
* Show Through
Visually determine preferred color text ink limit based on edge definition of various font styles and point sizes.
Specify Ink and Paper For Job
Print Test Pattern at Proper Speed
Characterization Software
Plot measurements in L*a*b* space and fit curves to them.
Divide graphics upper ink limit by 3 and apply to all 4 colors.
Apply upper ink limit to preferred color. Set upper ink limit of other primary colors to 50% or minimum threshold value of preferred color limit.
Derive graphics and text input / output transfer functions as inverse of L*a*b* plots from substrate color to specified upper ink limits.
Press Data System
Cyan Binary File
Magenta Binary File
Yellow Binary File
Black Binary File
Print
RIP
Drop dispersion operations
Modified continuous tone job data
Apply the appropriate transformations to the image data.
Server
Graphics input / output transformations for each of the 4 primary colors
Continuous tone job image data
Text input / output transformations for each of the 4 process colors
Continuous tone job text data

Figure 4

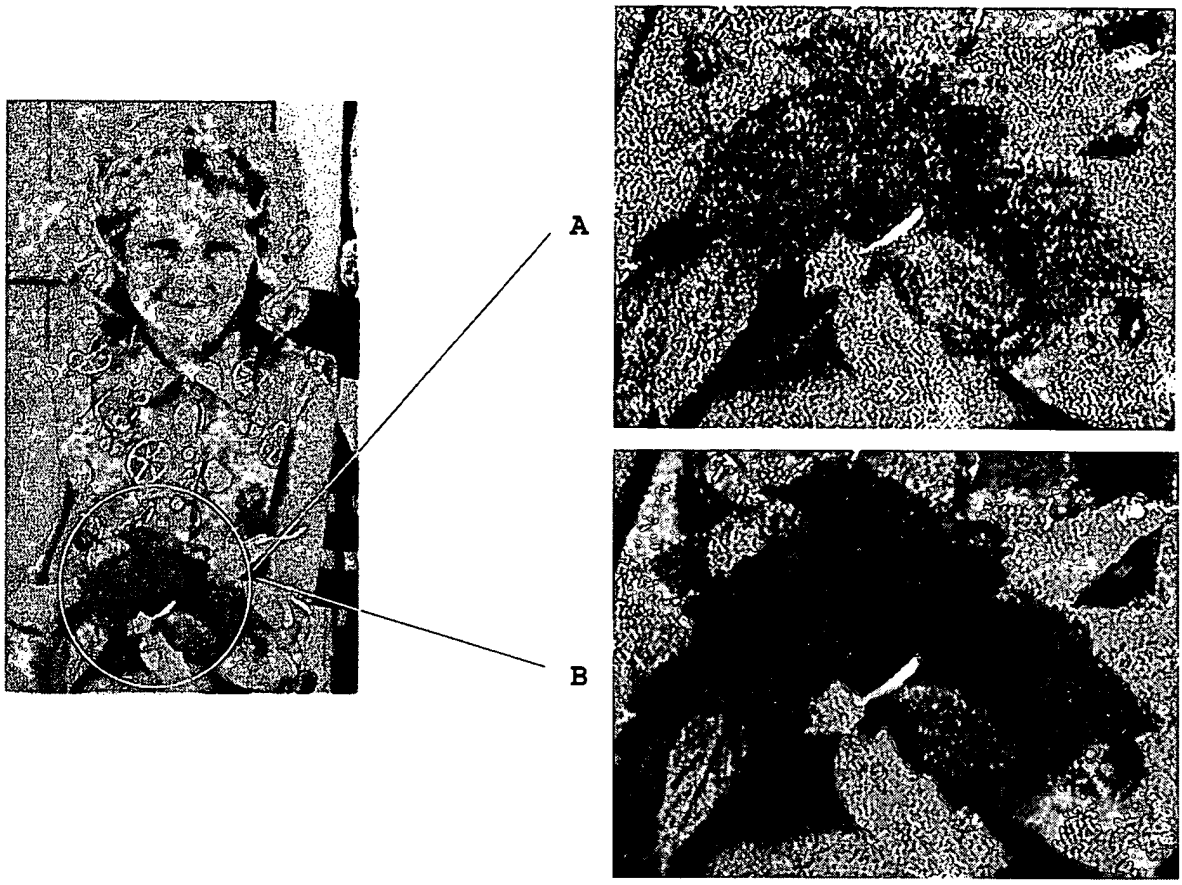



Figure 5

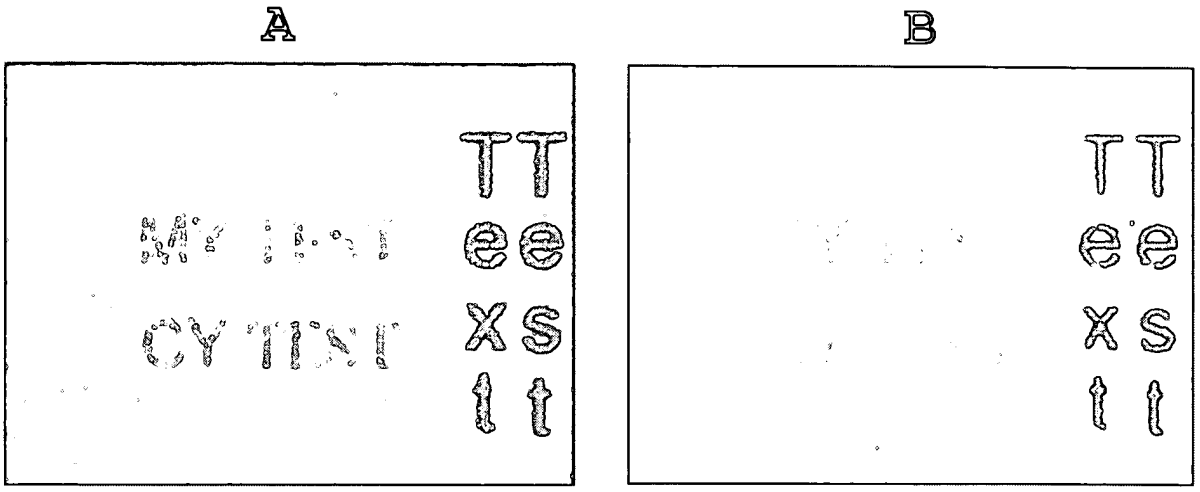



Figure 6